

Richard Klein, presenter
Idaho 2008 workshop agenda

1. Introduction-- my qualifications
2. 3 aviation jokes—saturn (use hubble transparency), most dangerous, luggage
3. Uses of aviation: core subjects impact, emphasis upon math and science
4. Matching of activities with idaho state standards and isat
5. Songs to fly by
6. Imaginary flying things ice breaker
7. **Technolgy**: use of internet and aviation url list
8. Use motion pictures to get across academic subjects and units—show bridges at toko-ri excerpt with math and science questions including hypothermia handouts
9. Aviation movie list
10. **Experiment on air**: cool air coming out of a balloon and temperature lapse rate problem
11. Aviation reports: subjects and components
12. Florida airport directory selections and questions for isat
13. Aviation literature: fiction, poetry
14. **Experiment—four forces:lift, thrust, gravity, drag**
15. Flying paper airplanes activity—4 forces:lift, thrust, gravity, and drag—newton's laws; bernoulli's principle; blow on pieces of paper for lift
16. Use airplane model for movements of flight: pitch, roll, yaw
17. Use mean and median formulas in flying paper airplanes and balloons
18. Construction of plotter using clear acetate and paper compass rose activity
19. Math questions such as $\frac{1}{4}$ of 360; $\frac{1}{2}$ of 180; increase by 45' to get each new direction; 45 is what % of 360?
20. Compass rose and reciprocal directions
21. Use of rotating plotter and homemade plotter
22. Map games with blank u.s. map and u.s. map with latitude and longitude
23. Montana chart symbols exercise
24. Latitude and longitude using tic-tac-toe (rubric)
25. Show how to find places on montana chart excerpt
26. Websites providing airport information
27. Airport diagrams information and reading
28. Tie in with close encounters excerpt and geographic coordinates—show movie excerpt
29. Finding 2 fields for flight planning exercise—malta ($48^{\circ}22'$, $107^{\circ}55'$) to three forks ($45^{\circ}52'$, $111^{\circ}34'$); completing trip plan questions with formula chart; marking checkpoints on flight log
30. Using map scales for distances in statute and nautical miles
31. Using fspro flight plan with technology strand and basis for time, speed and distance problems
32. Flight plan question sheet
33. Magnetic variation and geographic poles
34. Use of student e6-b for gs and wca
35. Cross country flight plan
36. Filling out aopa flight plan from m75 to 9s5
37. Maximum elevation figures for landforms and graphing on excel
38. **Math, social studies, reading, creative writing**: search and rescue
39. Search and rescue, show crash transparency
40. Enrichment activities
41. Venn diagram for search and rescue
42. Filling out aopa flight plan from m75 to 9s5—this will change if id charts are used instead of mt
43. Composition of the atmosphere with lack of oxygen at higher altitudes due to lower air pressure
44. **Science**: using excel for graphing effects of hypoxia and payne stewart—ask guesses for amount of time to make useful decisions
45. **Language arts, math, art: runway construction project, roswell with nm chart**
46. Time zones: pre-algebra with positive and negative numbers; canon world time zone chart
47. Fuel tank storage problem—volume of cylinder problem in geometry and weights and measures on internet
48. Hangar 51 and use of new mexico chart (tell teachers to get the chart and show the ufo symbol—bring nm charts; teachers can keep them—pair them up)
49. Runway construction project
50. Phonetic alphabet and spelling